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Intel Advances From III to 4

Intel's Pentium 4 processor hasn't seen soaring sales. Now, the chip maker is trying to boost demand by phasing out the older Pentium III and introducing a new chipset, the 845, which pairs the Pentium 4 with inexpensive SDRAM.

Although a generally stagnant PC market may explain the sluggish sales, the first desktops outfitted with Intel's flagship processor were expensive—and delivered underwhelming performance.

Before the advent of the 845 chip set, the processor required Rambus DRAM (RDRAM), which is significantly more expensive than memory paired with either Intel Pentium III or

ILLUSTRATIONS BY BEK SHAKIROV

AMD processors. Software performance lagged because few apps have been compiled to take advantage of the Pentium 4's advanced architecture. The result? Consumers have avoided costly machines that delivered marginal performance gains.

With the introduction of the 845 chipset, Intel aims to incorporate the Pentium 4 into systems priced as low as $800. The company's goal, says spokesman George Alfs, is to support all types of memory for all types of users, from SDRAM for consumers who use only lightweight applications to RDRAM for video professionals and hard-core gamers who need turbocharged power and speed.

And that may be the right track. Mike Feibus, a principal analyst at Mercury Research, recently raised his forecast for 2001 Pentium 4 sales from 14 million to 20 million units, saying that the 845 chipset and price cuts in the high-end Pentium 4 lines might finally give consumers a compelling reason to buy a new system.

But you might be surprised if you're looking for a sweet deal on an outdated Pentium III. Although Intel doesn't comment on future pricing, the company has historically introduced new processors and chipsets at an equivalent (or lower) cost to those being replaced. *—Adam Fisher*

Expanding XP

Want to add a little excitement to XP? **Microsoft** recently unleashed an expansion pack to showcase the multimedia prowess of the new OS.

The Microsoft Plus for Windows XP add-on will focus on digital media, the visual experience, and gaming, says Geordie Wilson, a product manager in the company's digital-media division. The $39.95 software creates a more stimulating environment for entertainment, he says.

Microsoft Plus for Windows XP

The digital-media apps include a personal DJ, voice-command software for Windows Media Player, a CD-label maker, MP3-audio-management tools, and snazzy skins and 3D visualizations.

Wilson is particularly enthusiastic about the pack's speaker-enhancement app. "We know the distortion profile of most of the common desktop speakers, and Plus corrects the distortion," Wilson says. "The difference is amazing."

Apps to upgrade the PC visual experience include realistic 3D screensavers and desktop themes. These add-ons harness the power of DirectX for eye-popping 3D modeling, he says. Three arcade-style games also draw on XP's 3D dexterity: HyperBowl, The Labyrinth, and Russian Square.

To run Plus, you'll need a graphics accelerator with at least 16MB of memory. *—Rik Fairlie*

Function Keys

A new breed of key-chain-size devices can plug into your computer's USB ports and do the work of hard drives, security keys, and more.

These tiny storage devices, which pack between 8MB and 512MB of memory, include the DiskOnKey *(www.diskonkey.com)*, Flash USBDrive *(www.usbdrive.com)*, Q *(www.agatetech.com)*, and ThumbDrive *(www.thumbdrive.com)*. These units aren't actually hard drives, however. They store your applications and data in non-volatile memory, although your computer treats them as plain old hard drives.

DiskOnKey

These mighty mites are just the beginning. Small and thin multigigabyte hard drives are on the horizon, according to Jason Ziller, president of the **USB Implementers Forum** *(www.usb.org)*. Moreover, security keys will make laptops useless to thieves. "If you have a notebook, and you open it, you can't even turn it on until you stick the key in," he says.

Tiny USB gadgets also act as miniature, platform-independent applications. The PlayApp Key *(www.playapp.com)* is a $44 device that generates and remembers passwords, encryption codes, and PGP passphrases. It creates difficult-to-hack passwords for each of your accounts and enters them for you automatically.

The devices' biggest flaw may be their greatest asset: diminutive size. After all, you don't want your data to slip between the couch cushions. *—Kevin Savetz*